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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,634	07/21/2003	Patrick Carl Wiley	I0780096 TWB/cd	4571

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EXAMINER	
SELLMAN, CACHET I	
ART UNIT	**PAPER NUMBER**
1762	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/622,634	WILEY, PATRICK CARL	
	Examiner	Art Unit	
	Cachet I. Sellman	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 April 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4,6-12,14-20,22-30 and 36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 4, 6-12, 14-20, 22-30 and 36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Acknowledgement is made of the amendment filed by the applicant on 4/27/2007, in which claims 1, 4, 6-12, 13-20, and 22-23 were amended, claims 2-3,5,21, and 31-35 were cancelled and 36 was added. Claims 1, 4, 6-12, 14-20, 22-30 and 36 are currently pending in U.S. Application Serial No. 10/622,634.

The examiner would like to apologize to the applicant for any convenience with regards to the previously listed allowable claims in the office action dated 1/10/2007. After further search additional prior was found that is pertinent to the claims.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings/ Specification

2. The objection to the drawings noted in paragraph 2 of the previous office action dated 1/10/2007 is withdrawn due to the applicant's amendment to the specification.

Claim Rejections - 35 USC § 112

3. The 112 2nd paragraph rejection of claim 23 noted in paragraph 5-6 of the previous office action 1/10/2007 has been withdrawn due to the applicant's amendment to claim 20 from which claim 23 depends.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

2. Claims 1, 4, and 6 -10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stonwell et al. (US 5215402) in view of Corbin et al. (US 4854771) Pacey (EP0041335) and Wiley (US 5653552).

Stonwell et al. discloses a process for imprinting a pattern in an asphalt surface where a grid-like template is compressed into an asphalt surface. The template is removed and the asphalt is allowed to harden, then a thin coating of colored concrete can be added to the surface of the patterned asphalt to enhance the brick and mortar effect (abstract).

Stonwell et al. is silent as to providing a pre-formed thermally settable sheet made of thermoplastic material; providing at least one further pre-formed thermally settable sheet; placing the first and at least one further sheet on the asphalt in an aligned configuration then gradually heating in situ to a temperature sufficient to bond the sheets to configure to the first patter as required by **claim 1**.

Corbin Jr. et al. teaches a method of installing a pre-formed pavement marking material on a asphalt surface where the asphalt is softened by means of a portable infrared heater to a temperature sufficient so the pre-formed marking material may be pressed into the asphalt (abstract, col. 2, lines 33-37) and placing the marking material onto the heated pavement (heating in situ), and pressing the marking material using a roller (col. 2, lines 56-66). Corbin Jr. et al. further teaches that the pre-formed thermoplastic marking materials are superior to painted marking material because they have a longer service life (col. 1, lines 47-49).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the process of Stonwell et al. to include the preformed marking material as taught by Corbin, Jr. et al. One would have been motivated to do so because both disclose processes of marking asphalt surfaces and Corbin Jr. et al. teaches the use of preformed marking material over coating because of the longer service life.

Pacey et al. discloses a process for heat bonding thermoplastic road marking material to a road which comprises heating the marking to its melting point to create a bond between the marking and the road surface (page 1, lines 16-page 2, line 3). Pacey discloses the marking may be supplied in two or more sections such as an arrowhead, which would require aligning of the pieces when being applied to the road (page 5, line 36- page 6, line 4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the process of Stonwell et al. to include the heat bonding of Pacey et al. One would have been motivated to do so because both disclose processes for providing marking materials to roadways and Pacey further teaches that markings can be in more than one section therefore the process is useful in order to assure the sections are aligned properly.

Wiley teaches a process for heating by moving a heater over a surface in a successive forward and backward direction (abstract) which allows for the asphalt to be heated uniformly and efficiently with minimal or no overheating (col. 6, lines 15-33).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the process of Stowell et al. in view of Corbin Jr. et al. to include gradually heating of the substrate. One would have been motivated to do so because both discloses processes for heating pavement in order to apply a marking material and Wiley teaches that heating gradually provides uniform heating in an efficient manner while minimizing or eliminating burning or smoking (Wiley et al. col. 5, lines 40-44).

Corbin Jr. et al. teaches using a marking material having a thickness of about 25-125 mils (col. 1, lines 12-17) as required by **claim 4**.

The sheet is heated to a temperature of 150-300°F as stated by Corbin Jr. et al. (col. 2, lines 56-57) as required by **claim 7**. Wiley et al. teaches gradually heating the sheet to a temperature of 100-190°C (220-374°F) (col. 8, lines 29-34) as required by **claim 8**.

Stonwell et al. teaches that the pattern is formed by forming a hot and pliable asphalt surface; placing a template on the surface and imprinting the template to form a first pattern then the template is removed (abstract, col. 2, lines 60-66) since the asphalt is hot meaning it was heated to form into a pliable surface as required by **claims 9 and 10**.

As stated above Stonwell modified with Corbin Jr. et al. teaches placing a pre-formed thermally settable sheet on a substrate having a first and second surface where the second surface is not in contact with the substrate (Corbin et al. teaches that the

marking material is pressed into the asphalt after being applied which means the second surface is not in contact with the substrate prior to pressing); heating the sheet in situ to a temperature for the surface to adhere to the substrate.

6. Claims 11, 12 , 14 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stonwell et al. (US 5215402) in view of Corbin, Jr et al. (US 4854771) and Pacey (EP0041335) as applied to claim 1 above, and further in view of Eigenmann (US 3235436).

The teachings of Stonwell et al. in view of Corbin, Jr. et al. and Pacey as applied to claim 1 are as stated above. However, these references are silent as to using a first sheet that is formed in a second pattern matching the first pattern and is alignable therewith as well as being subdividable into a plurality of discrete sections as required by **claims 11 and 12**.

Eigenmann teaches a process for applying marking strips for crosswalk lines and other traffic aids onto a roadway where the process requires forming a plurality of patterns by subdividing the marking material into discrete sections (col. 4, lines 45-59) and matching the patters and aligning the patterns (Fig. 4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the process of Stonwell et al., Corbin Jr. et al. and Pacey to form a plurality of discrete sections and aligning and forming a plurality of patterns to form a desired design in a roadway as taught by Eigenmann. One would have been motivated to do so because Eignemann teaches that the process is advantageous over

using paint to form designs in pavement and are more durable under severe road conditions (col. 1, lines 14-23).

Eignemann teaches aligning patterns in a non-overlapping relation and where the markings are partially surrounded by another one of the markings (Fig. 4) as required by **claim 14**.

Stonwell et al. teaches patterns that are formed to represent paving stones, cobblestones and bricks (col. 3, lines 1—7 and Fig. 2) which would simulate grout lines and a protective coating is applied and aligned to the edges of the lines as required by **claims 16 and 17**.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stonwell et al. in view of Corbin Jr et al. and Pacey as applied to claim 1 and in further view of 3M Application of Stamark Pre-Cut symbols and legends.

The teachings of Stonwell et al. in view of Corbin Jr et al. and Pacey as applied to claim 1 are as stated above. These references are silent as to applying sheets in an overlapping relation as required by **claim 15**.

3M teaches markings that are applied to roadways such as a railroad crossing (X) symbol which comprises laying out the first diagonal line on the pavement then the overlapping the other diagonal line over the first sheet (Page 6).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the process of Stonwell et al. in view of Corbin Jr et al. and Pacey with the marking of 3M when required to form a certain design which

resembles that of a railroad crossing because 3M discloses an optimal way of forming the desired design.

8. Claims 20, 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corbin Jr et al. (US 4854771) and Stonwell et al. (US 5215402).

Corbin Jr. et al. teaches a method of installing a pre-formed pavement marking material on a asphalt surface where the asphalt is softened by means of a portable infrared heater to a temperature sufficient so the pre-formed marking material may be pressed into the asphalt (abstract, col. 2, lines 33-37) and placing the marking material onto the heated pavement (heating in situ), and pressing the marking material using a roller (col. 2, lines 56-66). Corbin Jr. et al teaches that the pre-formed marking material has a first and second surface where the second surface is not in contact with the substrate because it states that the marking material is pressed into the asphalt after being applied which means the second surface is not in contact with the substrate prior to pressing. Corbin Jr. et al. further teaches that the pre-formed thermoplastic marking materials are superior to painted marking material because they have a longer service life (col. 1, lines 47-49).

Corbin Jr. et al. is silent as to imprinting the sheet by placing a template on the second surface of the sheet; compressing the template to form an impression in the sheet and substrate then removing the template from the second surface as required by **claim 20**.

Stonwell et al. discloses a process for imprinting a pattern in an asphalt surface where a grid-like template is compressed into an asphalt surface. The template is removed and the asphalt is allowed to harden, then a thin coating of colored concrete can be added to the surface of the patterned asphalt to enhance the brick and mortar effect (abstract). Stonwell et al. teaches that the template is compatible with hot asphalt surfaces unlike other conventional tools used to form patterns in hot asphalt.

It would have been obvious to one having ordinary skill in the art to modify the process of Corbin Jr. et al. to include the imprinting process of Stonwell et al. One would have been motivated to do so because both are directed towards processes involving decorating asphalt surfaces and Stonwell et al. further teaches an operable template that can be used with hot asphalt.

Stonwell et al. teaches it is known in the art to apply a release agent to the pattern former in order to prevent it from adhering to the concrete/ asphalt surface (col. 1, lines 50-53) as required by **claim 23**. Corbin Jr. et al. teaches that the sheet is formed from a thermoplastic material and has a thickness of about 25-125 mil (col.1, lines 7-15) as required by **claims 24 and 26-27**. The substrate is an asphalt surface as required by **claim 25**.

9. Claims 28-30 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corbin Jr .et al. in view of Stonwell et al. as applied to claim 20 above and further in view of Wiley (5653552).

The teachings of Corbin Jr. et al. and Stonwell as applied to claim 20 are as stated above. However, these references are silent as to using a heating apparatus that

is mounted for periodic movement across the sheet to gradually increase the temperature as required by **claim 28**.

Wiley teaches a process for heating by moving a heater over a surface in a successive forward and backward direction (abstract) which allows for the asphalt to be heated uniformly and efficiently with minimal or no overheating (col. 6, lines 15-33).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the process of Stowell et al. in view of Corbin Jr. et al. to include gradually heating of the substrate. One would have been motivated to do so because both discloses processes for heating pavement in order to apply a marking material and Wiley teaches that heating gradually provides uniform heating in an efficient manner while minimizing or eliminating burning or smoking (Wiley et al. col. 5, lines 40-44).

The sheet is heated to a temperature of 150-300°F as stated by Corbin Jr. et al. (col. 2, lines 56-57) as required by **claim 29**. Wiley et al. teaches gradually heating the sheet to a temperature of 100-190°C (220-374°F) (col. 8, lines 29-34) as required by **claim 30**.

Corbin Jr. et al. in combination with Stonwell et al. and Wiley teaches coating a substrate by forming a first pattern in a asphalt substrate; placing a pre-formed thermally settable thermoplastic sheet on the substrate and heating in situ to a temperature to sufficiently adhere the sheet to the substrate in the first pattern where

the sheet as a first and second surface (Corbin Jr. et al.) and the heating step is conducted so that there is a gradual increase in temperature. The heating apparatus is mounted on a vehicle, which includes a frame that can periodically pass over the sheet (Wiley col. 7,lines 49-62).

Double Patenting

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 1, 4, 6-12 14-20, 22-30 and 36 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-35 of copending Application No. 11/233,054. Although the conflicting claims are not identical, they are not patentably distinct from each other because Claim 1 of the instant application recites the method limitation of forming a first pattern in an asphalt surface; providing a pre-formed thermally settable sheet made of thermoplastic material;

providing at least on further sheet and placing the sheets on an asphalt surface in an aligned configuration and gradually heating in situ to sufficiently bond the sheets to the asphalt in configuration with the pattern. Claims 1-3, 5, and 13 of the copending application in combination would be obvious because they teach all of the limitations of claim 1 of the instant application.

Independent claim 20 of the instant application is obvious over claims 20 and 21 combined of the copending application because in combination they teach each and every limitation of claim 20 of the instant application.

Independent claim 36 of the instant application is obvious over claims 1, 5-6, and 20 of the copending application because in combination they teach all of the limitations of claim 36 of the instant application.

Dependent claims 4, 6-12, 14-19and 22-30 of the instant application are obvious over claims 4-12, 14-19, 22-30 of the copending application because in combination they teach each of the dependent claims of the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cachet I. Sellman whose telephone number is 571-272-0691. The examiner can normally be reached on Monday through Friday, 7:00 - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Cachet I Sellman
Examiner
Art Unit 1762

cis

William Phillip Fletcher III
Primary Examiner
Art Unit 1762

June 12, 2007